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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/633,718	TERAUE, EIJI	
	Examiner	Art Unit	
	BENIYAM MENBERU	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 July 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Response to Arguments

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

2. Applicant's arguments, see Pre-Appeal Brief Request, filed July 1, 2008, with respect to the rejection(s) of claim(s) 1, 5, 6, 9-14, 16, and 17 under U.S. Patent No. 7068391 to Dewitte et al further in view of U.S. Patent No. 6304345 to Patton et al have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of U.S. Patent No. 6717699 to Janssen et al in view of U.S. Patent Application Publication No. US2002/0097409 A1 to Wexler et al.

Claim Rejections - 35 USC § 112

1. Claims 9, 10, 13, and 14 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claims 9 and 10 disclose a "computer readable medium" which does not have support in the original specification.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1, 2, 3, 5, 9, 10, 11-14, 16, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6717699 to Janssen et al in view of U.S. Patent Application Publication No. US2002/0097409 A1 to Wexler et al.

Regarding claim 1, Janssen et al '699 discloses an image processing apparatus wherein when an output device is used to output a proof image reproducing a printed image in which a process color print image constituting of process colors and a spot color print image are superposed upon each other (column 2, lines 5-22; "superimposed dots"; column 5, lines 23-32; hybrid mode uses both spot colors and process colors; column 17, lines 32-39; digital proofing; column 20, lines 18-31), proof image data for the output device (column 17, lines 32-39; digital proofing; column 20, lines 18-31), that is representative of the proof image (column 17, lines 32-39; digital proofing; column 20, lines 18-31), is created through processing of printing image data representative of the printed image (column 15, lines 45-54; design data for printing), the image processing apparatus comprising:

an image data obtaining section that obtains the printing image data (column 17, lines 31-39; design for printing;);

an image data conversion section that converts the printing image data obtained in the image data obtaining section into the proof image data through processing of the printing image data presupposing a reproduction system for the printed image in the output device (column 17, lines 31-66; generation of "separation files" reads on processing of the printing image data; column 17, lines 63-67; column 18, lines 1-4; column 20, lines 18-31; proofing is done before design data for printing is generated ("presupposed");). However Janssen et al '699 does not disclose:

a) an additional image data creating section that creates additional image data for the output device, which is representative of an additional image describing a reproduction property of a spot color in the reproduction system presupposed when the image data conversion section processes printing image data; and

b) an image data output section that outputs to the output device the proof image data converted in the image data conversion section and the additional image data created in the additional image data creating section, so that the output device outputs the proof image and the additional image.

Wexler et al '409 discloses

a) an additional image data creating section that creates additional image data for the output device, which is representative of an additional image describing a reproduction property of a spot color in the reproduction system presupposed when the image data

conversion section processes printing image data (page 1, paragraph 3, 7; colors that are out of gamut such as saturated blue color can be considered spot colors; page 3, paragraph 33, 35; reproduction property corresponds to whether colors are in or outside gamut; page 4, paragraph 39, 40; a zero difference value represents in-gamut colors since no adjustment is made on in-gamut colors and non-zero difference represents out-of gamut colors; the residual image (additional image) is generated by difference value in step 25; thus the residual image (additional image) describes reproduction property of colors since depending on its value the color is considered inside or outside gamut; the difference calculation (reproduction property) is performed once the limited gamut image in step 22 in Figure 2 is available; the conversion step in step 21 (page 3 , paragraph 35) of adjusting colors determines the limited gamut image;); and

b) an image data output section that outputs to the output device the proof image data converted in the image data conversion section and the additional image data created in the additional image data creating section, so that the output device outputs the proof image and the additional image (page 1, paragraph 3, 7; page 2, paragraph 16-19; the output printing on limited gamut device is a "proof" since the limited gamut device has limited colors for reproduction. The same limited gamut image is later reproduced using the color gamut information on a device having larger gamut. Thus the limited gamut print serves as a proof before printing on a larger gamut device. Page 4; paragraph 41-44; the residual image (additional image) is encoded into the output print ("proof" image) and in step 28 the output image contains the "proof" image and the residual image ("additional image") (page 3, paragraph 31)).

Having the system of ***Janssen et al '699*** and then given the well-established teaching of ***Wexler et al '409***, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the system of ***Janssen et al '699*** as taught by ***Wexler et al '409***, since ***Wexler et al '409*** stated in page 2, paragraph 16-19, such a modification would provide the additional image data necessary for reproducing the output image on different output device of varying gamut size.

Regarding claim 2, Janssen et al '699 in view of Wexler et al '409 teaches all the limitations of claim 1. Further Wexler et al '409 discloses an image processing apparatus according to claim 1, wherein the additional image data creating section creates additional image data representative of an additional image describing whether the spot color in the printed image is a color within a color reproduction area of the output device (page 1, paragraph 3, 7; colors that are out of gamut (color reproduction area) such as saturated blue color can be considered spot colors; page 3, paragraph 33, 35; reproduction property corresponds to whether colors are in or outside gamut(color reproduction area); page 4, paragraph 39, 40; a zero difference value represents in-gamut colors since no adjustment is made on in-gamut colors and non-zero difference represents out-of gamut colors; the residual image (additional image) is generated by difference value in step 25;).

Regarding claim 3, Janssen et al '699 in view of Wexler et al '409 teaches all the limitations of claim 1. Further Wexler et al '409 discloses an image processing

apparatus according to claim 1, wherein the additional image data creating section creates additional image data representative of an additional image describing with numerical values ranks where a degree of the reproduction property is divided into a plurality of ranks (page 1, paragraph 3, 7; colors that are out of gamut (color reproduction area) such as saturated blue color can be considered spot colors; page 3, paragraph 33, 35; reproduction property corresponds to whether colors are in or outside gamut(color reproduction area); page 4, paragraph 39, 40; a zero difference value represents in-gamut colors since no adjustment is made on in-gamut colors and non-zero difference represents out-of gamut colors; the residual image (additional image) is generated by difference value in step 25; the numerical difference value is either zero or non-zero (two ranks). Degree of reproduction corresponds to either the case where colors are in the gamut or whether they are out of the gamut .).

Regarding claim 5, Janssen et al '699 discloses an image processing apparatus wherein when an output device is used to output a proof image reproducing a primed image in which a process color print image constituting of process colors and a spot color print image are superposed upon each other (column 2, lines 5-22; "superimposed dots"; column 5, lines 23-32; hybrid mode uses both spot colors and process colors; column 17, lines 32-39; digital proofing; column 20, lines 18-31), proof image data for the output device, that is representative of the proof image, is created through processing of priming image data representative of the primed image (column 17, lines 32-39; digital proofing; column 20, lines 18-31; column 15, lines 45-54; design data for printing), the image processing apparatus comprising:

an image data obtaining section that obtains the printing image data having a first image data portion representative of the process color print image and a second image data portion representative of the spot color print image (column 17, lines 31-39; design for printing; column 5, lines 23-33;);

an image data conversion section that converts the printing image data obtained in the image data obtaining section into the proof image data through processing of the printing image data presupposing a reproduction system for the printed image in the output device (column 17, lines 31-66; generation of "separation files" reads on processing of the printing image data; column 17, lines 63-67; column 18, lines 1-4; column 20, lines 18-31; proofing is done before design data for printing is generated ("presupposed");). However Janssen et al '699 does not disclose

a) an additional image data creating section that creates additional image data for the output device, which is representative of an additional image describing the reproduction system for a spot color in the output device presupposed when the image data conversion section processes the second image data portion; and

b) an image data output section that outputs to the output device the proof image data converted in the image data conversion section and the additional image data created in the additional image data creating section, so that the output device outputs the proof image and the additional image.

Wexler et al '409 discloses:

a) an additional image data creating section that creates additional image data for the output device, which is representative of an additional image describing the reproduction system for a spot color in the output device presupposed when the image data conversion section processes the second image data portion (page 1, paragraph 3, 7; colors that are out of gamut such as saturated blue color can be considered spot colors; page 3, paragraph 33, 35; reproduction property corresponds to whether colors are in or outside gamut; page 4, paragraph 39, 40; a zero difference value represents in-gamut colors since no adjustment is made on in-gamut colors and non-zero difference represents out-of gamut colors; the residual image (additional image) is generated by difference value in step 25; thus the residual image (additional image) describes reproduction property of colors since depending on its value the color is considered inside or outside gamut; the difference calculation (reproduction property) is performed once the limited gamut image in step 22 in Figure 2 is available; the conversion step processing in step 21 (page 3, paragraph 35) of adjusting colors which are out of gamut (second image) determines the limited gamut image;); and

b) an image data output section that outputs to the output device the proof image data converted in the image data conversion section and the additional image data created in the additional image data creating section, so that the output device outputs the proof image and the additional image (page 1, paragraph 3, 7; page 2, paragraph 16-19; the output printing on limited gamut device is a "proof" since the limited gamut device has limited colors for reproduction. The same limited gamut image is later reproduced using the color gamut information on a device having larger gamut. Thus the limited gamut

print serves as a proof before printing on a larger gamut device. Page 4; paragraph 41-44; the residual image (additional image) is encoded into the output print ("proof" image) and in step 28 the output image contains the "proof" image and the residual image ("additional image") (page 3, paragraph 31)).

Having the system of ***Janssen et al '699*** and then given the well-established teaching of ***Wexler et al '409***, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the system of ***Janssen et al '699*** as taught by ***Wexler et al '409***, since ***Wexler et al '409*** stated in page 2, paragraph 16-19, such a modification would provide the additional image data necessary for reproducing the output image on different output device of varying gamut size.

Regarding claims 9, see rejection of claim 1 as shown above. The apparatus of Janssen et al '699 in view of Wexler et al '409 render obvious the programming steps of claim 9.

Regarding claims 10, see rejection of claim 5 as shown above. The apparatus of Janssen et al '699 in view of Wexler et al '409 render obvious the programming steps of claim 10.

Regarding claim 11, Janssen et al '699 in view of Wexler et al '409 teaches all the limitations of claim 1. Further Janssen et al '699 discloses the image processing apparatus of claim 1, wherein the spot color is an ink which is specifically adjusted to represent the original color of the printing image data, and is used in addition to the standard process colors (column 19, lines 16-22; column 20, lines 22-31; new spot color reads on adjusting step.).

Regarding claims 12, see rejection of claim 11 as shown above. The apparatus of Janssen et al '699 in view of Wexler et al '409 render obvious the apparatus of claim 12.

Regarding claims 13, see rejection of claim 11 as shown above. The apparatus of Janssen et al '699 in view of Wexler et al '409 render obvious the apparatus of claim 13.

Regarding claims 14, see rejection of claim 11 as shown above. The apparatus of Janssen et al '699 in view of Wexler et al '409 render obvious the apparatus of claim 14.

Regarding claim 16, Janssen et al '699 in view of Wexler et al '409 teaches all the limitations of claim 1. Further Wexler et al '409 discloses the image processing apparatus of claim 1, wherein the image data conversion comprises at least one of a process color conversion; a spot color screening, and a tone arithmetic processing (page 3, paragraph 34; color values can be converted into different color space).

Regarding claim 17, Janssen et al '699 in view of Wexler et al '409 teaches all the limitations of claim 1. Further Wexler et al '409 discloses the image processing apparatus of claim 1, wherein the image data conversion comprises colorimetric processing (page 3, paragraph 34, 35; color values adjustment are based on colorimetric color space (LAB color space)).

3. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6717699 to Janssen et al in view of U.S. Patent Application Publication No.

US2002/0097409 A1 to Wexler et al further in view of U.S. Patent No. 6304345 to Patton et al.

Regarding claim 6, Janssen et al '699 in view of Wexler et al '409 teaches all the limitations of claim 5. However Janssen et al '699 in view of Wexler et al '409 does not disclose wherein the additional image data creating section creates additional image data representative of an additional image describing a sort of ink used when the output device reproduces the spot color.

Patton et al discloses an image processing apparatus according to claim 1, wherein the additional image data creating section creates additional image data representative of an additional image describing a sort of ink used when the output device reproduces the spot color (column 7, lines 5-14, 53-58; column 5, lines 13-20).

Having the system of ***Janssen et al '699 in view of Wexler et al '409*** and then given the well-established teaching of ***Patton et al '345***, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the system of ***Janssen et al '699 in view of Wexler et al '409*** as taught by ***Patton et al '345***, since ***Patton et al '345*** stated in column 7, lines 5-14, 53-58; column 5, lines 13-20, such a modification would provide necessary reproduction information for generating a matching print output.

4. Claims 4 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6717699 to Janssen et al in view of U.S. Patent Application Publication No. US2002/0097409 A1 to Wexler et al further in view of US 2004/0001208 A1 to Murakami.

Regarding claim 4, Janssen et al '699 in view of Wexler et al '409 teaches all the limitations of claim 1. However Janssen et al '699 in view of Wexler et al '409 does not disclose an image processing apparatus according to claim 1, wherein the additional image data creating section creates additional image data representative of an additional image associating a color chip of the spot color constituting the spot color print image with a description of reproduction property.

Murakami discloses wherein the additional image data creating section creates additional image data representative of an additional image associating a color chip of the spot color constituting the spot color print image with a description of reproduction property (page 3, paragraph 39, 40, 41, 42; c201 represents printing condition (reproduction property)).

Having the system of ***Janssen et al '699 in view of Wexler et al '409*** and then given the well-established teaching of ***Murakami '208***, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the system of ***Janssen et al '699 in view of Wexler et al '409*** as taught by ***Murakami '208***, since ***Murakami '208*** stated in page 1, paragraph 10, such a modification would provide an accurate color printing system.

Regarding claim 7, Janssen et al '699 in view of Wexler et al '409 teaches all the limitations of claim 5. Further ***Murakami '208*** discloses an image processing apparatus according to claim 1, wherein the additional image data creating section creates additional image data representative of an additional image associating a color

chip of the spot color with a description of reproduction system for the spot color (page 3, paragraph 40, 41, 42; c201 represents printing condition (reproduction property)).

5. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6717699 to Janssen et al in view of U.S. Patent Application Publication No. US2002/0097409 A1 to Wexler et al further in view of U.S. Patent No. 7068391 to Dewitte et al further in view of further in view of US 2003/0197878 to Metois et al.

Regarding claim 8, Janssen et al '699 in view of Wexler et al '409 teaches all the limitations of claim 5. However Janssen et al '699 in view of Wexler et al '409 does not disclose an image processing apparatus according to claim 5, wherein the output device reproduces the spot color by superposing inks of process colors using a specified halftone dot pattern.

Dewitte et al '391 discloses wherein the output device reproduces the spot color by superposing inks of process colors using a specified halftone dot pattern (column 5, lines 1-8).

Having the system of ***Janssen et al '699 in view of Wexler et al '409*** and then given the well-established teaching of ***Dewitte et al '391***, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the system of ***Janssen et al '699 in view of Wexler et al '409*** as taught by ***Dewitte et al '391***, since ***Dewitte et al '391*** stated in col. 7, Lines 49-57, such a modification would provide color matching for proofing system.

However Janssen et al '699 in view of Wexler et al '409 does not disclose the additional image data creating section creates additional image data representative of an additional image describing a sort of the halftone dot pattern.

Metois et al disclose the additional image data creating section creates additional image data representative of an additional image describing a sort of the halftone dot pattern (page 6, paragraph 66, 68; the digital code is additional image which is placed on image. The digital code has information about halftone parameters.).

Having the system of ***Janssen et al '699 in view of Wexler et al '409*** and then given the well-established teaching of ***Metois et al '878***, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the system of ***Janssen et al '699 in view of Wexler et al '409*** as taught by ***Metois et al '878***, since ***Metois et al '878*** stated in page 6, paragraph 66, such a modification would provide security for printed image data.

6. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6717699 to Janssen et al in view of U.S. Patent Application Publication No. US2002/0097409 A1 to Wexler et al further in view of U.S. Patent Application Publication No. US 2001/0052998 A1 to Kiyosu et al.

Regarding claim 15, Janssen et al '699 in view of Wexler et al '409 teaches all the limitations of claim 3. However Janssen et al '699 in view of Wexler et al '409 does not disclose wherein the plurality of ranks represents degrees of the reproduction property of the spot color.

Kiyosu et al '998 discloses wherein the plurality of ranks represents degrees of the reproduction property of the spot color (Figure 5, shows the plurality of rank values in association of plurality of target colors a, b, c (spot colors). The ranks represents accuracy information ("degree of the reproduction property") of the color conversion (page 8, paragraph 72, 73, 76).

Having the system of ***Janssen et al '699 in view of Wexler et al '409*** and then given the well-established teaching of ***Kiyosu et al '998***, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the system of ***Janssen et al '699 in view of Wexler et al '409*** as taught by ***Kiyosu et al '998***, since ***Kiyosu et al '998*** stated in page 8, paragraph 72, such a modification would provide color conversion as function of ranking for color accuracy.

Other Prior Art Cited

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent No. 6252676 to Azima et al disclose proof system.

U.S. Patent Application Publication No. US2006/0007252 A1 to Mahy et al disclose printing system.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BENIYAM MENBERU whose telephone number is (571) 272-7465. The examiner can normally be reached on 8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Moore can be reached on (571) 272-7437. The fax phone number for the organization where this application or proceeding is assigned is **571-273-8300**.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the customer service office whose telephone number is (571) 272-2600. The group receptionist number for TC 2600 is (571) 272-2600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov/>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patent Examiner
Beniyam Menberu

/Beniyam Menberu/

Examiner, Art Unit 2625

/David K Moore/

Supervisory Patent Examiner, Art Unit 2625

12/18/2008